

digital form pulses and said strobe pulses;

a selecting, sorting and counting means, providing the selection and sorting of said strobe pulse packages by an identical quantity of said strobe pulses within each of said strobe pulse packages.

7 ~~65~~. The apparatus of claim ~~64~~, wherein said amplifying means is connected to said light detecting means through said current-voltage conversion means, and wherein said analog-digital form pulse duration conversion means is connected to said amplifying means.

8 ~~66~~. The apparatus of claim ~~64~~, wherein said conjunction means is connected to said analog-digital form pulse duration conversion means, to said strobe pulse generating means and to said selecting, sorting and counting means.

Remarks

PTO did not consider and did not make any references to the applicant's Amendment of CPA received by PTO on April 28, 1999.

Claims 38-48 (and supposedly claims 49-58 of CPA) are pending in this application, all of which have been substituted new Claims 59-66. No new matters have been added. No new claims have been added.

In order to overcome the Examiner's paperwork difficulties, applicant has herein canceled Request for Approval of Drawing Correction sent with Amendment from November 10, 1998.

Abstract and Title have been amended to correct spelling, grammatical and idiomatic errors.

Specification has been amended to correct spelling, grammatical and idiomatic errors.

According to item 1 (page 2) of the OFFICE ACTION:

Applicant would be glad "...to submit a substitute specification incorporating all of changes so the Office would have a clear copy of the specification...", but applicant does not know what amendment of previously submitted amendments to use for, because there is no statement in all Office Actions that at least one of the applicant amendments is entered.

In order to overcome the Examiner's paperwork difficulties, applicant has canceled many minor corrections in the specification in comparison with the quantity of corrections presented in the previous amendments.

Also, applicant has amended the BACKGROUND OF INVENTION in the Specification, considering the referred by Examiner: Martin et al (US Patent No. 4,160,246) and Bostater (US Patent No. 5,751,424).

According to item 2 (page 2) of the OFFICE ACTION:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:....

Applicant thanks the Examiner for the presented fragment of 35 U.S.C. 103(a).

According to items 3, 4 (pages 3-7) of the OFFICE ACTION (herein after OA):

Page 3 of OA: "Claims 38-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over the acknowledged prior art in view of Bostater (U.S. 5,751,424)."

Applicant's arguments:

The one of the reasons for PTO's rejection under obviousness, as stated in the OA (see page 3, lines 5-8), is:

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"methods and devices for determining quantity and size of the particles... are well known, and it is also well known that powerful light or laser detecting system can be, and have been used to achieve particle size and particle measurements."

but applicant has precedently used the words "well known" from the analogous phrase:

"Devices for determining particle size are well known, and it is also well known that laser can be, and have been, heretofore utilized to achieve particle size measurements"

in the issued US Patents No. 4,798,465 (Knollenberg) and No. 4,571,079 (Knollenberg), and that was not a reason for the same Examiner of both Knollenberg's patents to reject these patents under 35 U.S.C. 103(a).

Thus, such reason for rejection under 35 U.S.C. 103(a) of claims 38-48 is unfounded and should be withdrawn.

The second reason for PTO's rejection under obviousness, as stated in the OA (see pages 3, 4, 6), is:

page 3:

"It is also known in the art that the computer can send signals to the measuring apparatus; see the specification, page 4, lines 13-14, which refers to the computer as "the data processing and control system."

but applicant has not understood what this statement for, because generally it is known that computer can send signals to the measurement apparatus and there are already hundred thousands of patents including this achievement in the different areas, but PTO did not refer to any patents for particle counter, including two-way wireless link, providing control signal (such as :turn-on, turn-off, switching mode signals, etc.) wireless transmission to the remote particle sensor. PTO has continuously referred to the different prior arts, providing only transmission of a data from a particle sensor. Therefore, the suggestion should not come from applicant was forcefully stated in Orthopedic Equipment Co. v. United States, 217 U.S.P.Q. 193, 199 (C.A.F.C. 1983):

"It is wrong to use the patent in suit [here means the patent application] as a guide through the maze of prior art references, combining the right references in the right way to achieve the result of the claims in suit [here means the claims pending]."

page 4:

"It is well known in the art that ... a wire can be replaced by a wireless link. See for instance Bostater, which shows an optical measuring apparatus and teaches that "[d]ata collected by sensor 106 is provided to a remote processor via a hardwired or wireless data or signal link as are well-known in the art."

but if Bostater has stated in the description of the preferred embodiments (not at least in the background of the prior art), that it is "well-known in the art" and further has claimed (see claims 1, 4, 5, 9) these obvious subject matters, how the Bostater's patent, according to Examiner's motivation, has been issued and was not immediately rejected under 35 U.S.C. 103(a). Plus, Bostater's patent is really obvious in view of Martin's patent (US 4,160,246), considering the use of the identical one-way wireless link for sending data from the sensor to processing

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portion, but it also was not a reason for Bostater's patent rejection.

page 6:

"Once it is known to use a wireless link to connect together an optical measuring instrument and a computer, it is obvious to use such link for any instrument for which such wireless link would be useful"

but, according to this PTO motivation, the referred by Examiner Bostater's patent has not to be issued in view at least of Martin's patent, having the absolutely identical one-way wireless link between optical instrument and processing portion, i.e, transmission of a data from the optical instrument to the such data processing means. If one-way data transmitting link is allowable for Bostater's patent in view of the known and identical link of Martin's patent, why two-way wireless transmitting-receiving communication for wireless automatic control of the remote sensor, which is the different and unobvious for particle counters, is not allowable for applicant's patent.

and on page 4:

"As it is well known in the art to sent data from a measuring apparatus to a computer over a wireless link, it is obvious to send any appropriate signals from the computer to the measuring apparatus over a wireless link..."

but the Bostater's patent, disclosing and claiming one-way wireless link for a data transmission, *does not teach and/or suggests* to control the particle sensor by the wireless sent control signals, using the two-way wireless communication, and as it was stated in In re Semaker. 217 U.S.P.Q. 1,6 (C.A.F.C. 1983):

"[P]rior art references ... do not make an invention obvious unless something in the prior art references would suggest the advantage to be derived from ... its teaching."

and the suggestion should not come from applicant was forcefully stated in Orthopedic Equipment Co. v. United States, 217 U.S.P.Q. 193, 199 (C.A.F.C. 1983):

"It is wrong to use the patent in suit [here means the patent application] as a guide through the maze of prior art references, combining the right references in the right way to achieve the result of the claims in suit [here means the claims pending]."

Thus, such reason for rejection under 35 U.S.C. 103(a) of claims 38-48 is unfounded and should be withdrawn.

The third reason for PTO's rejection under obviousness, as stated in the OA (see page 5), is:
page 5:

"It is clearly obvious to convert the data "to a form, which is acceptable for a wireless communication" given the obviousness of use of the wireless communication as shown by Bostater."

but Bostater converting an analog to digital (see "an analog to digital converter integrated with a commercially available ... computer" in column 4, lines 15-18) and *does not teach and/or suggest* in his patent "to convert to a form, which is acceptable for a wireless communication", and does not include the appropriate means (see, for example, Bostater's claim 4, where he claims a hardwired link for the same apparatus), and as it was stated in In re Semaker. 217 U.S.P.Q. 1,6 (C.A.F.C. 1983):

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"[P]rior art references ... do not make an invention obvious unless something in the prior art references would suggest the advantage to be derived from ... its teaching."

and the suggestion should not come from applicant was forcefully stated in Orthopedic Equipment Co. v. United States, 217 U.S.P.Q. 193, 199 (C.A.F.C. 1983):

"It is wrong to use the patent in suit [here means the patent application] as a guide through the maze of prior art references, combining the right references in the right way to achieve the result of the claims in suit [here means the claims pending]."

Thus, such reason for rejection under 35 U.S.C. 103(a) of claims 38-48 is unfounded and should be withdrawn.

The fourth reason for PTO's rejection under obviousness, as stated in the OA (see page 6), is:

page 6:

"It is clear that the data processing system being claimed is a computer of some sort..."

and

"It is also clear that the specification acknowledges that the use of such computer system for such data processing is known in the art..."

but the applicant has never announced his data processing system as computer anywhere in Abstract, Preferred Embodiments and Claims except Background of the Invention, where a computer is presented in a prior art, for example, Bostater calls his processor exactly as computer (see column 4, line 18) . Therefore, according to this PTO motivation, the referred Bostater's patent and, for example, Kaye's patent US 5,471,299 have not to be issued in view of, for example, Blesener's patent (US 5,085,500), having the COMPUTER (see in Kaye: data processor 37 in Abstract is called as computer 37 in specification (see column 6, line 41) and on Fig.3; and in Blesener: computer 153 on Fig.6). The presence of "computer" was not a reason for the same Examiner of both (Kaye's and Blesener's) patents to reject these patents under 35 U.S.C. 103(a).

Additionally, the regular computers, as it is implied in the referred prior arts and OA, do not comprise the conversion means for wireless receiving of a data from particle sensor and particularly do not comprise a wireless transmitting means for control signal transmission to the remote particle sensor, but it is provided by applicant's processing system, which is a different of "a computer", and as was forcefully stated in Ex parte Levengood, 28 U.S.P.Q. 2d 1300 [P.T.O.B.A. & I, 1993]:

"...That which is within the capabilities of one skilled in the art is not synonymous with obviousness. ...That one can reconstruct and/or explain the theoretical mechanism of an invention by means of logic and sound scientific reasoning does not afford the basis for an obviousness conclusion... . Accordingly, an Examiner cannot establish obviousness by locating references which describe various aspects of a patent applicant's invention ..."

Thus, such reason for rejection under 35 U.S.C. 103(a) of claims 38-48 is unfounded and

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should be withdrawn.

According to PTO statement on page 7 of OA:

"([s]uch devices, mostly using microprocessors or computers are well known...). Applicant cannot obtain a patent on known and obvious subject matter by simply calling well-known prior art material by a different name.",

applicant has not simply called a computer as a data processing and control means, considering that a computer, as it is implied in OA and disclosed in the prior art, do not comprise the conversion means for wireless receiving of a data from particle sensor and particularly do not comprise a transmitting means for control signal transmission to the particle sensor, but the referred invention by Bostater and inventions by Kaye and Blesener use not at least a simply changed name of computer, but exactly computer, that was not a reason for the rejection of Bostater's and/or Kaye's patents in view of Blesener's patent; and applicant has not invented, claimed and applied "to obtain a patent" on a computer, applicant has claimed a particle counting and measuring device, which does not include a computer, as it is in Bostater's and Kaye's patents. If the exactly computer is allowable for Bostater patent in view of the computers of Kaye's and Martin's patents, why the data processing system and control system, comprising a special converting means, control signal wireless transmitting means, which is the different and unobvious for particle counters, is not allowable for applicant's patent.

Thus, such reason for rejection under 35 U.S.C. 103(a) of claims 38-48 is unfounded and should be withdrawn.

From the beginning (from the first OA), PTO has continuously rejected claims 18-20 (in the last OA mentioned as the claims 46-48 /in the unmentioned CPA are claims 56-58/) under 35 U.S.C. 103(a) without any ***"factual basis to support examiner conclusion that it would have been obvious..."*** in accordance to *Ex parte Levengood*, 28 U.S.P.Q.2d 1300 [P.T.O.B.A.&I. 1993].

Thus, such reason for rejection under 35 U.S.C. 103(a) of claims 46-48 is unfounded and should be withdrawn.

Regarding Commercial Success Declaration, mentioned on page 7 of OA, applicant apologizes and can not to provide such Declaration at this time, considering that the claimed apparatus will supposedly be on the market around third-fourth quarter of 2001 yr.

In the present case, ***there are no reasons and evidences given in all OA***, to reject the proposed combination and the fact that the reference has transmitting (one-way) hardwired or wireless link and computer is not sufficient in order to meet applicant's novel claimed step combination and combinations of parts. Therefore, applicant submits, that the fact that the applicant combination produces advantages militates in favor of applicant, because it proves that the combination produces new and unexpected results and hence is unobvious.

None of the cited references teaches, mentions or suggests the recitation of the disclosed and claimed new (unsuggested) and unobvious combination of the steps, as it recited in the applicant's substituted new claim 59, 60; none of the cited references in the view of the others teaches, mentions or suggests the recitation of the disclosed and claimed new (unsuggested) and unobvious combination of the means, as it recited in the applicant's substituted new claim 61-66, providing the maximal portability of the particle counting and measuring apparatus, that

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is an advantage of the applicant's invention, providing a possible commercial success in the crowded particle counting and measuring apparatus field.

There was no prior art found and referred that suggested modification or combination with the cited art so as to satisfy combination of the present substituted new independent claim 59; especially, the prior art does not teach, mention or suggest

to form control signals in said data processing and control system, which provide a turning-on, turning-off and switching of modes of operation of said remote particle detecting system; to converse said control signals to the form for wireless transmission; to wireless transmit of the conversed control signals from said data processing and control system to said remote particle detecting system; to receive of the transmitted control signals by said remote particle detecting system; to converse the received control signals to the form for control of said remote particle detecting system,

there was no prior art found and referred that suggested modification or combination with the cited art so as to satisfy combination of the present substituted new independent claim 61; especially, the prior art does not teach, mention or suggest

to comprise a conversion system, converting control signals, received from said data processing and control systems, to the form for control of said remote particle detecting system; a processing, forming said control signals; a conversion means, converting said control signals to the form for transmission to said remote particle detecting system; a wireless transmitting means of data processing and control system, providing the transmission of said control signals to said remote particle detecting system; a wireless receiving means of remote particle detecting system, providing the receiving of said control signals from said data processing and control system;

and there was no prior art found and referred that suggested modification or combination with the cited art so as to satisfy combination of the present substituted new independent claim 64; especially, the prior art does not teach, mention or suggest

to comprise an analog-digital form pulse duration conversion means, providing conversion of each of said voltage value signals to digital form pulses, and wherein each of said digital form pulses has a duration, which is adequate to the duration of an appropriate output of said light detecting means; a strobe pulse generating means, providing generating of strobe pulses; a conjunction means, forming a strobe pulse packages by conjunction of each of said digital form pulses and said strobe pulses; a selecting, sorting and counting means, providing the selection and sorting of said strobe pulse packages by an identical quantity of said strobe pulses within each of said strobe pulse packages.

Thus, in view of the foregoing amendments, substitutions and accompanying remarks, the 35 U.S.C. 103(a) rejection of claims 38-48 (and supposedly claims 49-58 of CPA), as substituted by new claims 59-66, should be withdrawn.

The Abstract, Title and Specification have been amended to correct spelling, grammatical and idiomatic errors, as had been previously requested by Examiner. All Examiner's recommendations given during telephone interviews are considered. Also the BACKGROUND OF INVENTION in the Specification has been amended considering the referred by Examiner US Patent No. 5,751,424 by Bostater, Jr..

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The applicant as pro-se applicant, again respectfully request under M.P.E.P. 707.07(j), that if the Examiner feels that applicant's present claims are not entirely suitable, the Examiner drafts one or more allowable claims for applicant.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact applicant, at the telephone number indicated below, to arrange for an interview to expedite the disposition of this case.

For all the reasons given above, applicant respectfully submits that the errors in the specification are corrected and the claims comply with Section 103. Accordingly, applicant submits that this application is now in full condition for allowance, which action applicant respectfully solicits.

Very respectfully,



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Date: January 30, 2001 Applicant: Aleksandr L. Yufa, Ph.D.



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